

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Richland

2800 George Washington Way

Richland, WA 99352

Tel: (509)375-3131

TestAmerica Job ID: 300-1399-1

TestAmerica Sample Delivery Group: WC0545

Client Project/Site: CH2M Hill Chemical

For:

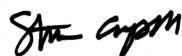
CH2M Hill Plateau Remediation Company

PO BOX 1600

Mail Stop R3-50

Richland, Washington 99352

Attn: CPP Sample Management



Authorized for release by:

11/17/2015 2:00:52 PM

Steven Campbell, Quality Assurance Assistant

steven.campbell@testamericainc.com

Designee for

Whitney Ritari, Project Manager I

(509)375-3131 ext164

whitney.ritari@testamericainc.com

LINKS

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I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this package. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the attached signature.

The laboratory is accredited to EPA 7196A in Solid and Chemical Materials, per Washington State Department of Ecology this is approved for non-discharge water samples. The sample/ sample duplicate RPD agreement is not applicable if one or both results are elss than five times the MDL.

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

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Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
-----------	-----------------------

D	The reported value is from a dilution.
M	Sample duplicate precision not met.
U	Analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
-----------	-----------------------

U	Analyzed for but not detected.
B	Estimated result. Result is less than the RL, but greater than MDL

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Job ID: 300-1399-1

Laboratory: TestAmerica Richland

Narrative**Job Narrative
300-1399-1****Comments**

No additional comments.

Receipt

The samples were received on 11/5/2015 12:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 11.3° C.

HPLC/IC

Method 300.0: The sample duplicate in batch 300-1852 was outside control limits for Nitrate as N. No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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SAMPLE ISSUE RESOLUTION

SIR NUM	SIR16-090
REV NUM	0
DATE INITIATED	11/12/2015

SAMPLE EVENT INFORMATION

SAF NUM(S)	X16-008
OPERABLE UNIT(S)	
PROJECT(S)	CERC16
SAMPLE EVENT TITLE(S)	CERC16
LABORATORY	TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES	2
SAMPLE NUMBERS	B33709, B33710
SAMPLE MATRIX	WATER
COLLECTION DATE	11/5/2015 - 11/5/2015
SDG NUM	WC0545

ISSUE BACKGROUND

CLASS	Chain of Custody Issue (Field)
TYPE	No Logbook Number
DESCRIPTION	COC # X16-008-177, SAMPLE B33710, B33709. No Logbook Number.

DISPOSITION

DESCRIPTION	DOCUMENT AND CLOSE
JUSTIFICATION	DOCUMENT AND CLOSE

SUBMITTED BY: Gayelyn Gibson DATE: 11/9/2015
ACCEPTED BY: Kirsten Killand DATE: 11/12/2015

1 2 3 4 5 6 7 8 9 10 11 12 13

CH2M Hill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
X16-008-184
Page 1 of 1

Collector	<i>m white</i>	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	X16-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	303064
Project Title	AQUIFER TUBES, NOVEMBER 2015	Logbook No.	HNF-N-506 <i>28-75</i>	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 438.1			SPECIAL INSTRUCTIONS		

Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservative
B33727	N		11-5-15	1113	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B33728	Y		11-5-15	1113	1x60-ml aG	7196_CR6: COMMON	24 Hours	Cool <=6C

W20545
#1399



300-1399 COC

Relinquished By	<i>CH2M Hill</i>	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
Relinquished By	<i>m white</i>	<i>MacDonald</i>		11-5-15 1225	<i>J. Bock</i>	<i>TARL</i>		11-5-15 1225	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drums Solids DL = Drums Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By				Date/Time	Received By			Date/Time	
Relinquished By				Date/Time	Received By			Date/Time	
Relinquished By				Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time		

PRINTED ON 10/5/2015

FSR ID = FSR/668

A-6004-842 (REV 2)

CH2M Hill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
X16-008-185
Page 1 of 1

Collector	M White Chm		Contact/Requester	Karen Waters-Husted		Telephone No.	509-376-4650	
SAF No.	X16-008		Sampling Origin	Hanford Site		Purchase Order/Charge Code	303064	
Project Title	AQUIFER TUBES, NOVEMBER 2015		Logbook No.	HNF-N-506 28/25		Ice Chest No.	N/A	
Shipped To (Lab)	TestAmerica Incorporated, Richland		Method of Shipment	GOVERNMENT VEHICLE		Bill of Lading/Air Bill No.	N/A	
Protocol	CERCLA		Priority:	30 Days		Offsite Property No.	N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1			SPECIAL INSTRUCTIONS			Hold Time		
						Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis		
B33730	N	W	11-11-15	1050	1x60-mL aG	7196_CR6: COMMON		
B33731	Y	W	11-11-15	1050	1x60-mL aG	7196_CR6: COMMON		
						Holding Time	Preservative	
						24 Hours	Cool <=6C	
						24 Hours	Cool <=6C	

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#1399

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
M White Melinda			11-15-15 1225	J. Bock, TARL			11-15-15 1225	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By				Received By			11-15-15 1115	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By				Received By				
Relinquished By				Received By				
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time			

PRINTED ON 10/5/2015

FSR ID = FSR/669

A-6004-842 (REV 2)

December 8, 2015


CH2M Hill Plateau Remediation Company
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

X16-008-182

Page 1 of 1

Collector	White elvick		Contact/Requester	Karen Waters-Husted		Telephone No.	509-376-4650	
SAF No.	X16-008		Sampling Origin	Hanford Site		Purchase Order/Charge Code	303064	
Project Title	AQUIFER TUBES, NOVEMBER 2015		Logbook No.	HNF-N-506 70/75		Ice Chest No.	N/A	
Shipped To (Lab)	TestAmerica Incorporated, Richland		Method of Shipment	GOVERNMENT VEHICLE		Bill of Lading/Air Bill No.	N/A	
Protocol	CERCLA		Priority:	30 Days		Offsite Property No.	N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1			SPECIAL INSTRUCTIONS PRIORITY			Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis		
B33722	Y	W	11-5-15	1000	1x60-mL aG	7196_CR6: COMMON		
B33721	N	W	11-5-15	1000	1x60-mL aG	7196_CR6: COMMON		
						Holding Time	Preservative	
						24 Hours	Cool <=6C	
						24 Hours	Cool <=6C	

 W00545
 #1399

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
White malidite			11-5-15 12:25	J. Bock, TARI			11-5-15 12:25	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WL = Wipe L = Liquid V = Vegetation X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By
PRINTED ON 10/5/2015				FSR ID = FSR7666				A-6004-842 (REV 2)

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CH2M HILL Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

X16-008-183

Page 1 of 1

Collector	<i>M. White</i>		Contact/Requester	Karen Waters-Husted		Telephone No.	509-376-4650	
SAF No.	X16-008		Sampling Origin	Hanford Site		Purchase Order/Charge Code	303064	
Project Title	AQUIFER TUBES, NOVEMBER 2015		Logbook No.	HNF-N-506 <i>78 / 75</i>		Ice Chest No.	N/A	
Shipped To (Lab)	TestAmerica Incorporated, Richland		Method of Shipment	GOVERNMENT VEHICLE		Bill of Lading/Air Bill No.	N/A	
Protocol	CERCLA		Priority:	30 Days		Offsite Property No.	N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1			SPECIAL INSTRUCTIONS			Hold Time	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis		
B33725	Y	W	11-5-15	0850	1x60-mL aG	7196_CR6: COMMON		
B33724	N	W	11-5-15	0950	1x60-mL aG	7196_CR6: COMMON		
						Holding Time	Preservative	
						24 Hours	Cool <=6C	
						24 Hours	Cool <=6C	

*WCD54S
#1399*

Relinquished By	<i>CH2M</i>	Print	Signature	Date/Time	Received By	Print	Signature	Date/Time	Matrix *
Relinquished By	<i>M. White</i>			11-5-15 1235	<i>J. Bock</i>	J. Bock, TARL		11-5-15 1235	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Debris Solids DL = Debris Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By				Date/Time	Received By			Date/Time	
Relinquished By				Date/Time	Received By			Date/Time	
Relinquished By				Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time			

PRINTED ON 10/5/2015

FSR ID = FSR7667

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30545
#1399

PRINTED ON 10/5/2015

CH2MHill Plateau Remediation
Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

X16-008-181

Page 1 of 1

Collector	M White			Contact/Requester	Karen Waters-Husted		Telephone No.	509-376-4650	
SAF No.	X16-008			Sampling Origin	Hanford Site		Purchase Order/Charge Code	303064	
Project Title	AQUIFER TUBES, NOVEMBER 2015			Logbook No.	HNF-N-506 28 / 75		Ice Chest No.	N/A	
Shipped To (Lab)	TestAmerica Incorporated, Richland			Method of Shipment	GOVERNMENT VEHICLE		Bill of Lading/Air Bill No.	N/A	
Protocol	CERCLA			Priority:	30 Days		Offsite Property No.	N/A	
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 438.1				SPECIAL INSTRUCTIONS					
Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservative	
B33718	N		11-5-15	1009	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C	
B33719	Y	W	11-5-15	1009	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C	

WCC545
#1399

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
M White	M White		11-5-15 1225	J. Bock	J. Bock, TARI		11-5-15 1225	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time

PRINTED ON 10/5/2015

FSR ID = FSR7665

A-6004-842 (REV 2)



CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
X16-008-180
Page 1 of 1

Collector	<i>M White</i>	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	X16-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	303064
Project Title	AQUIFER TUBES, NOVEMBER 2015	Logbook No.	HNF-N-506 <i>28/25</i>	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS *** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1			SPECIAL INSTRUCTIONS		
Sample No.	Filter	Date	No/Type Container	Sample Analysis	Holding Time
B33717	N	W 11-5-15	1x500-mL P	300.0 ANIONS, JC: COMMON	48 Hours
				Preservative	Cool <=6C
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

*WCD545
#1399*

Reinquished By	<i>Chad</i>	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
Reinquished By	<i>M White</i>			11-5-15 1225	<i>J. Bock</i>	<i>TARL</i>		11-5-15 1225	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Reinquished By					Received By				DS = Drum Solids DL = Drum Liquids T = Tissue WL = Wipe L = Liquid V = Vegetation X = Other
Reinquished By					Received By				
Reinquished By					Received By				
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By		Date/Time					

PRINTED ON 10/5/2015 FSR ID = FSR7665

A-6004-842 (REV 2)

December 8, 2015


CH2M HILL Plateau Remediation Company
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST
C.O.C. #
X16-008-176

Page 1 of 1

Collector	<i>M White chrc</i>	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	X16-008	Sampling Origin	Hanford Site	Purchase Order/Charge Code	303064
Project Title	AQUIFER TUBES, NOVEMBER 2015	Logbook No.	HNF-N-506 <i>78175</i>	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		
*** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1			Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	*	Date	Time	No/Type Container
B33/08	N	W	11-5-15	0857	1x500-mL P
			Sample Analysis		
			300.0_ANIONS_IC: COMMON		
			Holding Time		
			48 Hours		
			Preservative		
			Cool <=6C		

 W0545
#1399

Relinquished By	<i>chrc</i>	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
Relinquished By	<i>M White Mazi Site</i>			11-5-15 1225	<i>Back</i>	1 Back, TARI		11-5-15 1225	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By				Date/Time	Received By			Date/Time	
Relinquished By				Date/Time	Received By			Date/Time	
Relinquished By				Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION					Disposal Method (e.g., Return to customer, per lab procedure, used in process)				
PRINTED ON 10/5/2015					FSR ID = FSR7663				
					A-6004-842 (REV 2)				

11/17/2015

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Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: B33727

Lab Sample ID: 300-1399-1

No Detections.

Client Sample ID: B33728

Lab Sample ID: 300-1399-2

No Detections.

Client Sample ID: B33730

Lab Sample ID: 300-1399-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cr (VI)	0.0030	B	0.0040	0.0015	mg/L	1			7196A	Total/NA

Client Sample ID: B33731

Lab Sample ID: 300-1399-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cr (VI)	0.0033	B	0.0040	0.0015	mg/L	1			7196A	Total/NA

Client Sample ID: B33722

Lab Sample ID: 300-1399-5

No Detections.

Client Sample ID: B33721

Lab Sample ID: 300-1399-6

No Detections.

Client Sample ID: B33733

Lab Sample ID: 300-1399-7

No Detections.

Client Sample ID: B33734

Lab Sample ID: 300-1399-8

No Detections.

Client Sample ID: B33725

Lab Sample ID: 300-1399-9

No Detections.

Client Sample ID: B33724

Lab Sample ID: 300-1399-10

No Detections.

Client Sample ID: B33710

Lab Sample ID: 300-1399-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cr (VI)	0.0046		0.0040	0.0015	mg/L	1			7196A	Total/NA

Client Sample ID: B33709

Lab Sample ID: 300-1399-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Cr (VI)	0.0056		0.0040	0.0015	mg/L	1			7196A	Total/NA

Client Sample ID: B33718

Lab Sample ID: 300-1399-13

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: B33719

Lab Sample ID: 300-1399-14

No Detections.

Client Sample ID: B33717

Lab Sample ID: 300-1399-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	4.4	D	0.40	0.20	mg/L	2			300.0	Total/NA
Nitrate as N	0.70	D	0.056	0.028	mg/L	2			300.0	Total/NA
Fluoride	0.13	D	0.10	0.050	mg/L	2			300.0	Total/NA
Sulfate	39	D	0.50	0.25	mg/L	2			300.0	Total/NA

Client Sample ID: B33708

Lab Sample ID: 300-1399-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	13	D	0.40	0.20	mg/L	2			300.0	Total/NA
Nitrate as N	4.5	D	0.056	0.028	mg/L	2			300.0	Total/NA
Fluoride	0.21	D	0.10	0.050	mg/L	2			300.0	Total/NA
Sulfate	120	D	1.3	0.63	mg/L	5			300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: B33727

Date Collected: 11/05/15 11:13

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:41	1

Client Sample ID: B33728

Date Collected: 11/05/15 11:13

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:42	1

Client Sample ID: B33730

Date Collected: 11/05/15 10:50

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-3

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0030	B	0.0040	0.0015	mg/L	-		11/05/15 14:42	1

Client Sample ID: B33731

Date Collected: 11/05/15 10:50

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0033	B	0.0040	0.0015	mg/L	-		11/05/15 14:42	1

Client Sample ID: B33722

Date Collected: 11/05/15 10:00

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-5

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:43	1

Client Sample ID: B33721

Date Collected: 11/05/15 10:00

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-6

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:43	1

Client Sample ID: B33733

Date Collected: 11/05/15 10:41

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-7

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:46	1

TestAmerica Richland

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: B33734

Lab Sample ID: 300-1399-8

Date Collected: 11/05/15 10:41

Matrix: Water

Date Received: 11/05/15 12:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:46	1

Client Sample ID: B33725

Lab Sample ID: 300-1399-9

Date Collected: 11/05/15 09:50

Matrix: Water

Date Received: 11/05/15 12:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:47	1

Client Sample ID: B33724

Lab Sample ID: 300-1399-10

Date Collected: 11/05/15 09:50

Matrix: Water

Date Received: 11/05/15 12:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:47	1

Client Sample ID: B33710

Lab Sample ID: 300-1399-11

Date Collected: 11/05/15 08:57

Matrix: Water

Date Received: 11/05/15 12:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0046		0.0040	0.0015	mg/L	-		11/05/15 14:47	1

Client Sample ID: B33709

Lab Sample ID: 300-1399-12

Date Collected: 11/05/15 08:57

Matrix: Water

Date Received: 11/05/15 12:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0056		0.0040	0.0015	mg/L	-		11/05/15 14:48	1

Client Sample ID: B33718

Lab Sample ID: 300-1399-13

Date Collected: 11/05/15 10:09

Matrix: Water

Date Received: 11/05/15 12:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:48	1

Client Sample ID: B33719

Lab Sample ID: 300-1399-14

Date Collected: 11/05/15 10:09

Matrix: Water

Date Received: 11/05/15 12:25

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		11/05/15 14:51	1

TestAmerica Richland

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: B33717

Lab Sample ID: 300-1399-15

Date Collected: 11/05/15 10:09

Matrix: Water

Date Received: 11/05/15 12:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4	D	0.40	0.20	mg/L			11/05/15 13:48	2
Nitrate as N	0.70	D	0.056	0.028	mg/L			11/05/15 13:48	2
Fluoride	0.13	D	0.10	0.050	mg/L			11/05/15 13:48	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/05/15 13:48	2
Sulfate	39	D	0.50	0.25	mg/L			11/05/15 13:48	2

Client Sample ID: B33708

Lab Sample ID: 300-1399-16

Date Collected: 11/05/15 08:57

Matrix: Water

Date Received: 11/05/15 12:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13	D	0.40	0.20	mg/L			11/05/15 14:03	2
Nitrate as N	4.5	D	0.056	0.028	mg/L			11/05/15 14:03	2
Fluoride	0.21	D	0.10	0.050	mg/L			11/05/15 14:03	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/05/15 14:03	2
Sulfate	120	D	1.3	0.63	mg/L			11/05/15 14:27	5

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-1852/5

Matrix: Water

Analysis Batch: 1852

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014	U	0.028	0.014	mg/L			11/05/15 11:40	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			11/05/15 11:40	1

Lab Sample ID: LCS 300-1852/6

Matrix: Water

Analysis Batch: 1852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.26	2.38		mg/L		105	80 - 120
Nitrite as N	3.04	3.23		mg/L		106	80 - 120

Lab Sample ID: 300-1394-A-5 MS

Matrix: Water

Analysis Batch: 1852

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.38	D M	0.452	0.756	D	mg/L		83	75 - 125
Nitrite as N	0.038	U	0.609	0.584	D	mg/L		96	75 - 125

Lab Sample ID: 300-1394-A-5 DU

Matrix: Water

Analysis Batch: 1852

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	0.38	D M	0.310	D M	mg/L		21	20
Nitrite as N	0.038	U	0.038	U	mg/L		NC	20

Lab Sample ID: MB 300-1853/5

Matrix: Water

Analysis Batch: 1853

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.10	U	0.20	0.10	mg/L			11/05/15 11:40	1
Fluoride	0.025	U	0.050	0.025	mg/L			11/05/15 11:40	1
Sulfate	0.13	U	0.25	0.13	mg/L			11/05/15 11:40	1

Lab Sample ID: LCS 300-1853/6

Matrix: Water

Analysis Batch: 1853

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16.0	16.7		mg/L		104	80 - 120
Fluoride	4.00	4.20		mg/L		105	80 - 120
Sulfate	20.0	20.9		mg/L		104	80 - 120

TestAmerica Richland

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-1394-A-5 MS

Matrix: Water

Analysis Batch: 1853

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.2	D	3.20	4.38	D	mg/L		99	75 - 125
Fluoride	0.16	D	0.800	0.936	D	mg/L		97	75 - 125
Sulfate	12	D	4.00	16.2	D	mg/L		105	75 - 125

Lab Sample ID: 300-1394-A-5 DU

Matrix: Water

Analysis Batch: 1853

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	1.2	D	1.14	D	mg/L		5	20
Fluoride	0.16	D	0.165	D	mg/L		1	20
Sulfate	12	D	11.9	D	mg/L		0.7	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-1863/3

Matrix: Water

Analysis Batch: 1863

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			11/05/15 14:38	1

Lab Sample ID: LCS 300-1863/4

Matrix: Water

Analysis Batch: 1863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.255		mg/L		102	80 - 120

Lab Sample ID: 300-1399-1 MS

Matrix: Water

Analysis Batch: 1863

Client Sample ID: B33727

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0015	U	0.0500	0.0519		mg/L		104	85 - 115

Lab Sample ID: 300-1399-1 DU

Matrix: Water

Analysis Batch: 1863

Client Sample ID: B33727

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.0015	U	0.0015	U	mg/L		NC	20

TestAmerica Richland

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

HPLC/IC

Analysis Batch: 1852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1394-A-5 DU	Duplicate	Total/NA	Water	300.0	
300-1394-A-5 MS	Matrix Spike	Total/NA	Water	300.0	
300-1399-15	B33717	Total/NA	Water	300.0	
300-1399-16	B33708	Total/NA	Water	300.0	
LCS 300-1852/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1852/5	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 1853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1394-A-5 DU	Duplicate	Total/NA	Water	300.0	
300-1394-A-5 MS	Matrix Spike	Total/NA	Water	300.0	
300-1399-15	B33717	Total/NA	Water	300.0	
300-1399-16	B33708	Total/NA	Water	300.0	
300-1399-16	B33708	Total/NA	Water	300.0	
LCS 300-1853/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1853/5	Method Blank	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 1863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1399-1	B33727	Total/NA	Water	7196A	
300-1399-1 DU	B33727	Total/NA	Water	7196A	
300-1399-1 MS	B33727	Total/NA	Water	7196A	
300-1399-2	B33728	Total/NA	Water	7196A	
300-1399-3	B33730	Total/NA	Water	7196A	
300-1399-4	B33731	Total/NA	Water	7196A	
300-1399-5	B33722	Total/NA	Water	7196A	
300-1399-6	B33721	Total/NA	Water	7196A	
300-1399-7	B33733	Total/NA	Water	7196A	
300-1399-8	B33734	Total/NA	Water	7196A	
300-1399-9	B33725	Total/NA	Water	7196A	
300-1399-10	B33724	Total/NA	Water	7196A	
300-1399-11	B33710	Total/NA	Water	7196A	
300-1399-12	B33709	Total/NA	Water	7196A	
300-1399-13	B33718	Total/NA	Water	7196A	
300-1399-14	B33719	Total/NA	Water	7196A	
LCS 300-1863/4	Lab Control Sample	Total/NA	Water	7196A	
MB 300-1863/3	Method Blank	Total/NA	Water	7196A	

TestAmerica Richland

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: B33727

Date Collected: 11/05/15 11:13

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:41	AMC	TAL RCH

Client Sample ID: B33728

Date Collected: 11/05/15 11:13

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:42	AMC	TAL RCH

Client Sample ID: B33730

Date Collected: 11/05/15 10:50

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:42	AMC	TAL RCH

Client Sample ID: B33731

Date Collected: 11/05/15 10:50

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:42	AMC	TAL RCH

Client Sample ID: B33722

Date Collected: 11/05/15 10:00

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:43	AMC	TAL RCH

Client Sample ID: B33721

Date Collected: 11/05/15 10:00

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:43	AMC	TAL RCH

TestAmerica Richland

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: B33733

Date Collected: 11/05/15 10:41

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:46	AMC	TAL RCH

Client Sample ID: B33734

Date Collected: 11/05/15 10:41

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:46	AMC	TAL RCH

Client Sample ID: B33725

Date Collected: 11/05/15 09:50

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:47	AMC	TAL RCH

Client Sample ID: B33724

Date Collected: 11/05/15 09:50

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:47	AMC	TAL RCH

Client Sample ID: B33710

Date Collected: 11/05/15 08:57

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:47	AMC	TAL RCH

Client Sample ID: B33709

Date Collected: 11/05/15 08:57

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:48	AMC	TAL RCH

TestAmerica Richland

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: B33718

Date Collected: 11/05/15 10:09

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:48	AMC	TAL RCH

Client Sample ID: B33719

Date Collected: 11/05/15 10:09

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:51	AMC	TAL RCH

Client Sample ID: B33717

Date Collected: 11/05/15 10:09

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1852	11/05/15 13:48	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1853	11/05/15 13:48	RLC	TAL RCH

Client Sample ID: B33708

Date Collected: 11/05/15 08:57

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1852	11/05/15 14:03	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1853	11/05/15 14:03	RLC	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1853	11/05/15 14:27	RLC	TAL RCH

Client Sample ID: Duplicate

Date Collected: 11/04/15 12:41

Date Received: 11/05/15 09:25

Lab Sample ID: 300-1394-A-5 DU

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1852	11/05/15 12:40	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1853	11/05/15 12:40	RLC	TAL RCH

Client Sample ID: B33727

Date Collected: 11/05/15 11:13

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-1 DU

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:41	AMC	TAL RCH

TestAmerica Richland

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 300-1852/6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL		1852	11/05/15 11:55	RLC	TAL RCH

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 300-1853/6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL		1853	11/05/15 11:55	RLC	TAL RCH

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 300-1863/4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:38	AMC	TAL RCH

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 300-1852/5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL		1852	11/05/15 11:40	RLC	TAL RCH

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 300-1853/5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL		1853	11/05/15 11:40	RLC	TAL RCH

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 300-1863/3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			1863	11/05/15 14:38	AMC	TAL RCH

TestAmerica Richland

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Client Sample ID: Matrix Spike

Date Collected: 11/04/15 12:41

Date Received: 11/05/15 09:25

Lab Sample ID: 300-1394-A-5 MS

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	10 mL		1852	11/05/15 12:25	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1853	11/05/15 12:25	RLC	TAL RCH

Client Sample ID: B33727

Date Collected: 11/05/15 11:13

Date Received: 11/05/15 12:25

Lab Sample ID: 300-1399-1 MS

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1		3.0 mL	1863	11/05/15 14:38	AMC	TAL RCH

Laboratory References:

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL RCH
7196A	Chromium, Hexavalent	SW846	TAL RCH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1399-1
SDG: WC0545

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-1399-1	B33727	Water	11/05/15 11:13	11/05/15 12:25
300-1399-2	B33728	Water	11/05/15 11:13	11/05/15 12:25
300-1399-3	B33730	Water	11/05/15 10:50	11/05/15 12:25
300-1399-4	B33731	Water	11/05/15 10:50	11/05/15 12:25
300-1399-5	B33722	Water	11/05/15 10:00	11/05/15 12:25
300-1399-6	B33721	Water	11/05/15 10:00	11/05/15 12:25
300-1399-7	B33733	Water	11/05/15 10:41	11/05/15 12:25
300-1399-8	B33734	Water	11/05/15 10:41	11/05/15 12:25
300-1399-9	B33725	Water	11/05/15 09:50	11/05/15 12:25
300-1399-10	B33724	Water	11/05/15 09:50	11/05/15 12:25
300-1399-11	B33710	Water	11/05/15 08:57	11/05/15 12:25
300-1399-12	B33709	Water	11/05/15 08:57	11/05/15 12:25
300-1399-13	B33718	Water	11/05/15 10:09	11/05/15 12:25
300-1399-14	B33719	Water	11/05/15 10:09	11/05/15 12:25
300-1399-15	B33717	Water	11/05/15 10:09	11/05/15 12:25
300-1399-16	B33708	Water	11/05/15 08:57	11/05/15 12:25

TestAmerica Richland

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-1399-1

SDG Number: WC0545

Login Number: 1399

List Source: TestAmerica Richland

List Number: 1

Creator: Bock, Julie A

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	